DOCKET NO.: L0461.70047US00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

plicant:

Valerie Martelange et al.

Serial No:

09/183,789

Confirmation. No.:

3523

Filed:

October 30, 1998

For:

TUMOR ASSOCIATED NUCLEIC ACIDS AND USES

THEREFOR

Examiner:

Alana M. Harris

Art Unit:

1642

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to MAIL STOP Non-Fee Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the 11th day of March, 2004.

Mail Stop Non-Fee Amendment

Commissioner For Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Transmitted herewith are the following documents:

- Response to Office Action [X]
- Paper Copy of Sequence Listing [X]
- NCBI Sequence publications 8 pages [X]
- **Return Receipt Postcard** [X]

If the enclosed papers are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned at (617) 720-3500, Boston, Massachusetts.

A check is not enclosed. If a fee is required, the Commissioner is hereby authorized to charge Deposit Account No. 23/2825. A duplicate of this sheet is enclosed.

Respectfully submitted,

By: MaryDilys S. Anderson, Reg. No.: 52,560

Wolf, Greenfield & Sacks, P.C.

600 Atlantic Avenue

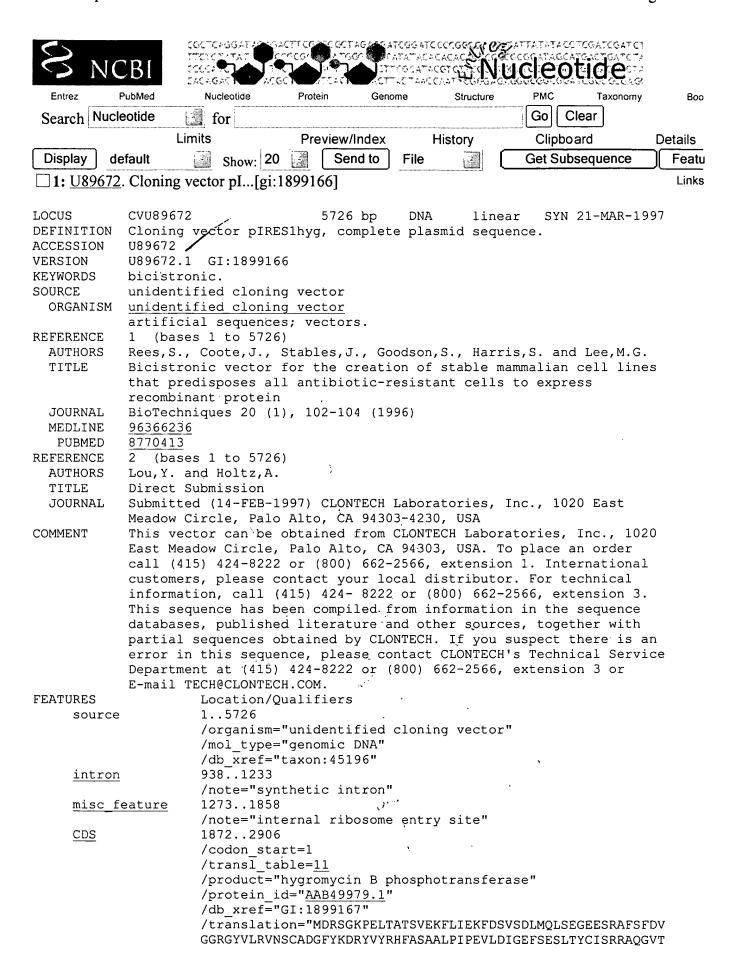
Boston, Massachusetts 02210-2211

Telephone: (617)720-3500 Representative for Applicants

Docket No. L0461.70047US00

Date: March 11, 2004

x03/11/04x



```
LQDLPETELPAVLQPVAEAMDAIAAADLSQTSGFGPFGPQGIGQYTTWRDFICAIADP
                HVYHWQTVMDDTVSASVAQALDELMLWAEDCPEVRHLVHADFGSNNVLTDNGRITAVI
                DWSEAMFGDSQYEVANIFFWRPWLACMEQQTRYFERRHPELAGSPRLRAYMLRIGLDO
                LYQSLVDGNFDDAAWAQGRCDAIVRSGAGTVGRTQIARRSAAVWTDGCVEVLADSGNR
                RPSTRPRAKE"
                4730..5591
gene
                /gene="bla"
CDS
                complement (4730..5590)
                /EC number="3.5.2.6"
                /function="ampicillin-resistance"
                /codon start=1
                /transl table=11
                /product="beta-lactamase"
                /protein id="AAB49980.1"
                /db xref="GI:1899168"
                /translation="MSIQHFRVALIPFFAAFCLPVFAHPETLVKVKDAEDOLGARVGY
                IELDLNSGKILESFRPEERFPMMSTFKVLLCGAVLSRIDAGQEQLGRRIHYSQNDLVE
                YSPVTEKHLTDGMTVRELCSAAITMSDNTAANLLLTTIGGPKELTAFLHNMGDHVTRL
                DRWEPELNEAI PNDERDTTMPVAMATTLRKLLTGELLTLASRQQLI DWMEADKVAGPL
                LRSALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTGSQATMDERNRQIA
                EIGASLIKHW"
  1 gacggatcgg gagatctccc gatcccctat ggtcgactct cagtacaatc tgctctgatg
```

ORIGIN

```
61 ccgcatagtt aagccagtat ctgctccctg cttgtgtgtt ggaggtcgct gagtagtgcg
 121 cgagcaaaat ttaagctaca acaaggcaag gcttgaccga caattgcatg aagaatctgc
 181 ttagggttag gcgttttgcg ctgcttcgcg atgtacgggc cagatatacg cgttgacatt
 241 gattattgac tagttattaa tagtaatcaa ttacggggtc attagttcat agcccatata
 301 tggagtteeg egttaeataa ettaeggtaa atggeeegee tggetgaeeg eecaaegaee
 361 cccgcccatt gacgtcaata atgacgtatg ttcccatagt aacgccaata gggactttcc
 421 attgacgtca atgggtggac tatttacggt aaactgccca cttggcagta catcaagtgt
 481 atcatatgcc aagtacgccc cctattgacg tcaatgacgg taaatggccc gcctggcatt
 541 atgcccagta catgacetta tgggacttte etaettggca gtacatetae gtattagtea
 601 tcgctattac catggtgatg cggttttggc agtacatcaa tgggcgtgga tagcggtttg
 661 actcacgggg atttccaagt ctccacccca ttgacgtcaa tgggagtttg ttttggcacc
 721 aaaatcaacg ggactttcca aaatgtcgta acaactccgc cccattgacg caaatgggcg
 781 gtaggcgtgt acggtgggag gtctatataa gcagagctct ctggctaact agagaaccca
 841 ctgcttactg gcttatcgaa attaatacga ctcactatag ggagacccaa gcttggtacc
 901 gageteggat ecaetagtaa eggeegeeag tgtgetggaa ttaatteget gtetgegagg
 961 gccagctgtt ggggtgagta ctccctctca aaagcgggca tgacttctgc gctaagattg
1021 tcagtttcca aaaacgagga ggatttgata ttcacctggc ccgcggtgat gcctttgagg
1081 gtggccgcgt ccatctggtc agaaaagaca atctttttgt tgtcaagctt gaggtgtggc
1141 aggettgaga tetggeeata caettgagtg acaatgacat ceaetttgee ttteteteea
1201 caggtgtcca ctcccaggtc caactgcagg tcgatcgagc atgcatctag ggcggccqca
1261 ctagaggaat tegeceetet eeeteeeee eeeetaaegt taetggeega ageegettgg
1321 aataaggccg gtgtgtgttt gtctatatgt gattttccac catattgccg tcttttggca
1381 atgtgagggc ceggaaacct ggccetgtet tettgaegag cattectagg ggtetttece
1441 ctctcgccaa aggaatgcaa ggtctgttga atgtcgtgaa ggaagcagtt cctctggaag
1501 cttcttgaag acaaacaacg tctgtagcga ccctttgcag gcagcggaac ccccacctg
1561 gcgacaggtg cctctgcggc caaaagccac gtgtataaga tacacctgca aaggcggcac
1621 aaccccagtg ccacgttgtg agttggatag ttgtggaaag agtcaaatgg ctctcctcaa
1681 gcgtagtcaa caaggggctg aaggatgccc agaaggtacc ccattgtatg ggaatctgat
1741 ctggggcctc ggtgcacatg ctttacatgt gtttagtcga ggttaaaaaa gctctaggcc
1801 ccccgaacca cggggacgtg gttttccttt gaaaaacacg atgataagct tgccacaacc
1861 ccgtaccaaa gatggataga tccggaaagc ctgaactcac cgcgacgtct gtcgagaagt
1921 ttctgatcga aaagttcgac agcgtctccg acctgatgca gctctcggag ggcgaagaat
1981 ctcgtgcttt cagcttcgat gtaggagggc gtggatatgt cctgcgggta aatagctgcg
2041 ccgatggttt ctacaaagat cgttatgttt atcggcactt tgcatcggcc gcgctcccga
2101 ttccggaagt gcttgacatt ggggaattca gcgagagcct gacctattgc atctcccqcc
2161 gtgcacaggg tgtcacgttg caagacctgc ctgaaaccga actgcccqct gttctqcaqc
2221 cggtcgcgga ggccatggat gcgatcgctg cggccgatct tagccagacg agcgggttcg
```

11

```
2281 gcccattcgg accgcaagga atcggtcaat acactacatg gcgtgatttc atatgcqcqa
2341 ttgctgatcc ccatgtgtat cactggcaaa ctgtgatgga cgacaccgtc agtgcgtccg
2401 tegegeagge tetegatgag etgatgettt gggeegagga etgeeeegaa gteeggeace
2461 tegtgeacge ggatttegge tecaacaatg teetgaegga caatggeege ataacagegg
2521 tcattgactg gagcgaggcg atgttcgggg attcccaata cgaggtcgcc aacatcttct
2581 tetggaggee gtggttgget tgtatggage ageagaegeg etaettegag eggaggeate
2641 cggagettge aggategeeg eggeteeggg egtatatget eegeattggt ettgaeeaae
2701 totatcagag cttggttgac ggcaatttcg atgatgcagc ttgggcgcag ggtcgatgcg
2761 acgcaatcgt ccgatccgga gccgggactg tcgggcgtac acaaatcgcc cgcagaagcg
2821 cggccgtctg gaccgatggc tgtgtagaag tactcgccga tagtggaaac cgacgcccca
2881 gcactcgtcc gagggcaaag gaatagagta gatgccgacc gaacaagagc tgatttcgag
2941 aacgcetcag ecageaacte gegegageet ageaaggeaa atgegagaga aeggeettae
3001 gettggtgge acagtteteg tecacagtte getaageteg eteggetggg tegegggagg
3061 gccggtcgca gtgattcagg cccttctgga ttgtgttggt ccccagggca cgattgtcat
3121 gcccacgcac tcgggtgatc tgactgatcc cgcagattgg agatcgccgc ccgtgcctgc
3181 cgattgggtg cagatctaga gctcgctgat cagcctcgac tgtgcctcta gttgccagcc
3241 atctgttgtt tgcccctccc ccgtgccttc cttgaccctg gaaggtgcca ctcccactgt
3361 ggggggtggg gtggggcagg acagcaaggg ggaggattgg gaagacaata gcaggcatgc
3421 tggggatgcg gtgggctcta tggcttctga ggcggaaaga accagctggg gctcgagtgc
3481 attotagttq tqqtttqtcc aaactcatca atqtatctta tcatqtctqt ataccqtcqa
3541 cctctagcta gagcttggcg taatcatggt catagctgtt tcctgtgtga aattgttatc
3601 cgctcacaat tccacacaac atacgagccg gaagcataaa gtgtaaagcc tggggtgcct
3661 aatgagtgag ctaactcaca ttaattgcgt tgcgctcact gcccgctttc cagtcgggaa
3721 acctgtcgtg ccagctgcat taatgaatcg gccaacgcgc ggggagaggc ggtttgcgta
3781 ttgggcgctc ttccgcttcc tcgctcactg actcgctgcg ctcggtcgtt cggctgcggc
3841 gageggtate ageteactea aaggeggtaa taeggttate eacagaatea ggggataaeg
3901 caggaaagaa catgtgagca aaaggccagc aaaaggccag gaaccgtaaa aaggccgcgt
3961 tgctggcgtt tttccatagg ctccgcccc ctgacgagca tcacaaaaat cgacgctcaa
4021 gtcagaggtg gcgaaacccg acaggactat aaagatacca ggcgtttccc cctggaagct
4081 ccctcgtgcg ctctcctgtt ccgaccctgc cgcttaccgg atacctgtcc gcctttctcc
4141 cttcgggaag cgtggcgctt tctcaatgct cacgctgtag gtatctcagt tcggtgtagg
4201 tegttegete caagetggge tgtgtgeaeg aacceeegt teageeegae egetgegeet
4261 tatccggtaa ctatcgtctt gagtccaacc cggtaagaca cgacttatcg ccactggcag
4321 cagccactgg taacaggatt agcagagcga ggtatgtagg cggtgctaca gagttcttga
4381 agtggtggcc taactacggc tacactagaa ggacagtatt tggtatctgc gctctgctga
4441 agccagttac cttcggaaaa agagttggta gctcttgatc cggcaaacaa accaccgctg
4501 qtaqcqqtqq tttttttqtt tqcaaqcaqc aqattacqcq caqaaaaaaa qqatctcaaq
4561 aagateettt gatettttet aeggggtetg aegeteagtg gaaegaaaae teaegttaag
4621 ggattttggt catgagatta tcaaaaagga tcttcaccta gatcctttta aattaaaaat
4681 gaagttttaa atcaatctaa agtatatatg agtaaacttg gtctgacagt taccaatgct
4741 taatcagtga ggcacctatc tcagcgatct gtctatttcg ttcatccata gttgcctgac
4801 teccegtegt gtagataaet aegataeggg agggettaee atetggeece agtgetgeaa
4861 tgataccgcg agacccacgc tcaccggctc cagatttatc agcaataaac cagccagccg
4921 gaagggccga gcgcagaagt ggtcctgcaa ctttatccgc ctccatccag tctattaatt
4981 gttgccggga agctagagta agtagttcgc cagttaatag tttgcgcaac gttgttgcca
5041 ttgctacagg catcgtggtg tcacgctcgt cgtttggtat ggcttcattc agctccggtt
5101 cccaacgatc aaggcgagtt acatgatece ccatgttgtg caaaaaagcg gttageteet
5161 teggteetee gategttgte agaagtaagt tggeegeagt gttateacte atggttatgg
5221 cagcactgca taattctctt actgtcatgc catccgtaag atgcttttct gtgactggtg
5281 agtactcaac caagtcattc tgagaatagt gtatgcggcg accgagttgc tcttgcccgg
5341 cgtcaatacg ggataatacc gcgccacata gcagaacttt aaaagtgctc atcattggaa
5401 aacgttcttc ggggcgaaaa ctctcaagga tcttaccgct gttgagatcc agttcgatgt
5461 aacccactcg tgcacccaac tgatcttcag catcttttac tttcaccagc gtttctgggt
5521 gagcaaaaac aggaaggcaa aatgccgcaa aaaagggaat aagggcgaca cggaaatgtt
5581 gaatactcat actcttcctt tttcaatatt attgaagcat ttatcagggt tattgtctca
5641 tgaqcqqata catatttqaa tgtatttaqa aaaataaaca aataqqqqtt ccqcqcacat
5701 ttccccqaaa agtqccacct qacqtc
```

Disclaimer | Write to the Help Desk NCBI | NLM | NIH

Feb 24 2004 16:01:25

\Re	NCBI		ACC.	PLATATAC CTTCGCAT	TCCCCGGCCG OF LACACAC DO TO ACGTCG DE NOTE ACGACT TEUROAGA	ideot		
Entrez	PubMed	Nucleotide	Protein (Genome	Structure	PMC	Taxonomy	Boo
Search	Nucleotide	for				Go Cle	ear	
		Limits	Preview/Inde	ex	History	Clipboa	rd	Details
Display	default	Show: 20	Send to	File				
□1: A	A213817. zrg	91d11.s1 NCI CG.	[gi:1812444					Links

IDENTIFIERS

 dbEST Id:
 853083

 EST name:
 zr91d11.s1

 GenBank Acc:
 AA213817

 GenBank gi:
 1812444

 GDB Id:
 5586381

CLONE INFO

Clone Id: IMAGE: 683061 (3')

Source: IMAGE Consortium, LLNL

Insert length: 1729 DNA type: cDNA

PRIMERS

Sequencing: -41m13 fwd. ET from Amersham

PolyA Tail: Unknown

SEQUENCE

CCTTTTGAGGTAAACTCCTGTTTTTAATAATATTTTCTAAAAGTTCTGCAATTGCAGCAT TGAGAGGTAGAAACTTCTCATCAAACTCCTGAGCACTAATCTGCTTACAGTATGAGTA AGTTGGCAAAGGAGCAAATAGTCCATCTCCAGGATTTTCAATATGTCCCTTTTTTAAGTA GTCAAGATGTTTTTCCACTGCAGTCTGTAAGTAAGAGGGTACTTGAAGAATTTCCTGATG ATGATCCATTAAGAAAGAAACTAATCTTCCAGCAAGAAGCTCATCAAGATCCACTTCTTC AGCACAGCATAACACACATCGAGAAAAGGTATGNATCATCAAGTGACCTCGTACCCATTG CATCATGGAAGTTTTGGGCATATCCACCATTTTTGACTCATTCGGGGAAATCATACGCATT

AAAAGTTTGAAGCTTCTACGANTTTGGTTGGGGGAA
Quality: High quality sequence stops at base: 317

Entry Created: Dec 10 1996 Last Updated: Aug 13 1997

COMMENTS

This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further

information.

LIBRARY

Lib Name: NCI_CGAP_GCB1
Organism: Homo sapiens

Tissue type: germinal center B cell

Lab host: DH10B

Vector: pT7T3D-Pac (Pharmacia) with a modified polylinker

R. Site 1: Not I R. Site 2: Eco RI

Description: 1st strand cDNA was prepared from human tonsillar cells

enriched for germinal center B cells by flow sorting (CD20+, IgD-), provided by Dr. Louis M. Staudt (NCI), Dr. David Allman (NCI) and Dr. Gerald Marti (CBER). cDNA synthesis was

primed with a Not I - oligo(dT) primer

Double-stranded cDNA was ligated to Eco RI adaptors

(Pharmacia), digested with Not I and cloned into the Not I and Eco RI sites of the modified pT7T3 vector. Library went through one round of normalization, and was constructed by

Bento Soares and M. Fatima Bonaldo.

SUBMITTER

Name: E-mail: Robert Strausberg, Ph.D. cgapbs-r@mail.nih.gov

CITATIONS

Title:

National Cancer Institute, Cancer Genome Anatomy Project

(CGAP), Tumor Gene Index

Authors:

NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap

Year:

1997

Status:

Unpublished

MAP DATA

Disclaimer | Write to the Help Desk NCBI | NLM | NIH

Feb 24 2004 16:01:25

S	NCBI	COCTCAGGATAC GA TTCTCCTTAT CCC CCCCA PCT CCCCA CACAGAC ACG		TATATAC STITEGEAT	TCCCCGECTA OF TACACAC ACAC ACAC ACAC ACAC ACAC ACAC					
Entrez	PubMed	Nucleotide	Protein	Genome	Structure	PMC	Taxonomy	Воо		
Search	Nucleotide	for				Go CI	ear			
		Limits	Preview/In	dex	History	Clipboa	ard	Details		
Display	default	Show: 20	Send	to File						
☐ 1: W86797. zh64c05.s1 Soares[gi:1400525]										

IDENTIFIERS

 dbEST Id:
 594947

 EST name:
 zh64c05.s1

 GenBank Acc:
 W86797

 GenBank gi:
 1400525

 GDB Id:
 1325310

CLONE INFO

Clone Id: IMAGE: 416840 (3')

Source: IMAGE Consortium, LLNL

DNA type: cDNA

PRIMERS

Sequencing: mob.REGA+ET PolyA Tail: Unknown

SEQUENCE

GAACTTGTGAAAATCAATAAAATGATTTATTTTATATATGCAAAATCAAAATCTCTTTGT
ACACTTTAATTTTTGCAAATTCATACAAACATAACAATACTGCTCCATATAAACTTTTGT
ATAAACATTAAAGGAAATATACACATATTTTGTTCTTCTTGTGCTTCCAAAGCACAGAAT
GTATAAGTCCATCTGAAGACTTTCTATCATCACATGCAAGAACAAATGTCAGAGGTTGGG
GGCAGCCTCAAGTGCACTTTGTAATGTCTCTTCTCAAGGTACTGAATTAGGACTCGTCTT
TTAAACCTTGCGGCTTCCTTGATGGTAAATTCAACAAACTGTTTCTTCATCTCCAGAGGT
CCTTGCACTTCTTCAAGCAAAATGAAAATTCTTTCATATTTTCGACCAAACTTTCGAACT

TCCTTCATTAATTGATGGTTTATATCAGCATTGGATTCC High quality sequence stops at base: 361

Entry Created: Jul 1 1996 Last Updated: Jul 1 1996

COMMENTS

Quality:

This clone is available royalty-free through LLNL ; contact the IMAGE Consortium ($\underline{info@image.llnl.gov}$) for further

information.

LIBRARY

Lib Name: Soares_fetal_liver_spleen_1NFLS_S1

Organism: Homo sapiens

Sex: male

Organ: Liver and Spleen

Develop. stage: 20 week-post conception fetus Lab host: DH10B (ampicillin resistant)

Vector: pT7T3D (Pharmacia) with a modified polylinker

R. Site 1: Pac I R. Site 2: Eco RI

Description: This is a subtracted version of the original Soares fetal

liver spleen 1NFLS library. 1st strand cDNA was primed with

a Pac I - oligo(dT) primer [5'

double-stranded cDNA was ligated to Eco RI adaptors

(Pharmacia), digested with Pac I and cloned into the Pac I and Eco RI sites of the modified pT7T3 vector. Library went through one round of normalization. Library constructed by

Bento Soares and M. Fatima Bonaldo.

SUBMITTER

Name: Wilson RK

Washington University School of Medicine Institution:

Address: 4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108

Tel: 314 286 1800 Fax: 314 286 1810

E-mail: est@watson.wustl.edu

CITATIONS

Title: The WashU-Merck EST Project

Authors: Hillier, L., Clark, N., Dubuque, T., Elliston, K., Hawkins, M.,

Holman, M., Hultman, M., Kucaba, T., Le, M., Lennon, G., Marra, M. , Parsons, J., Rifkin, L., Rohlfing, T., Soares, M., Tan, F., Trevaskis, E., Waterston, R., Williamson, A., Wohldmann, P.,

Wilson, R.

Year: 1995

Status: Unpublished

MAP DATA

Disclaimer | Write to the Help Desk NCBI | NLM | NIH

Feb 24 2004 16:01:25